

**REMARKS**

Claims 1-14 are all the claims pending in the application.

**I. Objections to the Specification**

The specification is objected to as failing to provide support for the claimed subject matter. Specifically, the Examiner refers to 37 CFR 1.75(d)(1) and MPEP 608.01(o), asserting that correction is required with regard to the phrase “slot-in portion is smaller than a cross-section of the cross-over portion,” as recited in claim 9.

In the Amendment filed January 22, 2008, Applicant submitted that at least FIG. 4 of the specification provides sufficient support for the claimed subject matter of claim 9. FIG. 4 clearly shows an exemplary slot-in portion 44a being smaller in cross-section than an exemplary cross-over portion 44b. In response, the Examiner asserts that this is not persuasive “because figure 4 shows a perspective external view of the conductors, not a cross-section of winding,” (Office Action, page 8-9). Applicant notes that at least paragraph 22 of the published application explicitly discloses that FIG. 4 shows **winding** 43A. Additionally Applicant notes that paragraph 26 of the published application discloses an exemplary embodiment where the cross section of the cross-over portion is 1.6 mm and the cross section of the slot-in portion is 1.3 mm.

The Examiner also asserts that “[correction] of the following is required: ends of coil elements,” (Office Action, page 3). Applicant notes that at least paragraph 22 provides sufficient antecedent basis for the claimed “ends of coil elements” recited in claim 11. For example, paragraph 22 discloses, “the cross-over portion (coil end portion) 44b...”.

The Examiner objects to the title of the invention as not being descriptive and requires a new title that is clearly indicative of the invention to which the claims are directed. Applicant amends the title.

Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw these objections.

## II. Objections to the Drawings

The drawings are objected to under 37 C.F.R. § 1.83(a). Specifically, the Examiner asserts that the claimed feature of the “slot-in portion is smaller than a cross-section of the cross-over portion,” as recited in claim 9, is not shown in the drawings. At least FIG. 4 and paragraph 22 of the published specification clearly show that the slot-in portion 44a is smaller in cross-section than the cross-over portion 44b.

The Examiner also asserts that the claimed features of “the ends of the coil elements connect the coil element of the slot-in portions in adjacent slots among the plurality of slots,” and “distances between the ends of coil elements in the cross-over portion are different,” as recited in claim 11, are not shown in the drawings. Applicant amends claim 11 to more clearly recite the claimed invention. Furthermore, an example of the distances between ends of coil elements being different is shown at least in FIG. 2 of the drawings. The windings 43A of FIG. 2 are “mounted on the stator core 41A by shifting slots 41c to be mounted one by one,” (paragraph 22). Clearly, since the windings 43A are mounted being shifted from each other, the distance between the ends of coil elements in the cross-over portion are different.

Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw these objections.

III. Claim Rejections under 35 U.S.C. § 112

Claims 9 and 11 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner asserts that there is insufficient written support for the feature of “slot-in portion is smaller than a cross-section of the cross-over portion” recited in claim 9, and the features of “ends of the coil elements connect the coil element of the slot-in portions in adjacent slots among the plurality of slots,” and “distances between the ends of coil elements in the cross-over portion are different,” recited in claim 11.

At least FIG. 4, paragraph 22 and paragraph 26 of the published specification provide support for the above-noted feature of claim 9. For example, FIG. 4 shows that the slot-in portion 44a is smaller in cross-section than the cross-section of the cross-over portion 44b, and paragraph 22 of the specification discloses that FIG. 4 shows winding 43A. Paragraph 26 discloses an exemplary embodiment where the cross section of the cross-over portion is 1.6 mm and the cross section of the slot-in portion is 1.3 mm.

Applicant amends claim 11 to more clearly recite the claimed invention. Furthermore, the claimed feature of the distances between ends of coil elements being different is shown at least in FIG. 2 and paragraph 22 of the published specification. The windings 43A of FIG. 2 are “mounted on the stator core 41A by shifting slots 41c to be mounted one by one,” (paragraph 22). Clearly, since the windings 43A are mounted being shifted from each other, the distance between the ends of coil elements in the cross-over portion are different.

Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw this rejection.

V. Claim Rejections under 35 U.S.C. § 103

***Rejection of Claims 1-10***

Claims 1, 3, 4, 6-8 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujita et al. (U.S. Publication No. 2002/0043886; hereinafter “Fujita”) and Oohashi et al. (U.S. Publication No. 2002/0096958; hereinafter “Oohashi”).

Dependent claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujita and Oohashi in view of Umeda et al. (U.S. Patent No. 5,936,326; hereinafter “Umeda”).

Dependent claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujita and Oohashi in view of Asao et al. (U.S. Patent No. 6,281,612; hereinafter “Asao”). Dependent claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujita and Oohashi in view of Kessinger et al. (U.S. Patent No. RE38939; hereinafter “Kessinger”).

Claim 1 is amended and recites an ac generator for a vehicle comprising, *inter alia*, a housing supporting the rotor and the stator, wherein the stator core is constituted by laminated core having a plurality of slots each extending to an axial direction, the electrical conductor is comprised of a slot-in portion located in the slots and a cross-over portion connecting each of the slot-in portions at the shaft end side of the stator, wherein the conductor is formed so that the slot-in portion located in the slots is molded to substantially rectangular in its cross-sectional profile before it is entered in the slots and the cross-over portion is substantially circular in its cross-sectional profile.

Fujita merely discloses that the cross-section of the stator coil inside the slots is approximately rectangular, and the stator coil including end portions of the coil ends is circular (paragraph 115). Fujita fails to teach or suggest at least the claimed feature of “the slot-in

portion located in the slots is molded to substantially rectangular in its cross-sectional profile before it is entered in the slots,” as recited in claim 1.

Similarly, Oohashi merely discloses that a stator winding 16 is formed by a winding conductor wire 29, the conductor wire 29 having a circular cross section (paragraph 48). Oohashi fails to address the above identified deficiencies of Fujita.

Neither Umeda, Asao nor Kessinger, independently or in combination address the above-identified deficiencies of Fujita and Oohashi.

Accordingly, Applicant respectfully submits that claim 1 is patentable over the applied references. Applicant further submits that claims 2-10 are patentable at least by virtue of their dependency on claim 1.

#### ***Rejection of Claim 11***

Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujita and Oohashi in further view of Japanese Publication 03-226251 to Kusase Arata (hereinafter “Kusase”). The Examiner acknowledges that the combination of Fujita and Oohashi fails to teach or suggest wherein “distances between the ends of coil elements in the cross-over portion are different,” and instead relies on Kusase.

Kusase disclose a stator coil 16 (x, y, z) that is wound around respective tees 41a-41c (abstract). Referring to FIG. 1 of Kusase, the Examiner alleges that the portion of the coil extending across tees 41a, 41b and 41c as corresponding to the claimed cross-over portion, and that the differences between the coil elements “between the x, y, and z phases” are different (Office Action page 8). Claim 11 is amended to recite that “distances between adjacent, parallel ends of the at least one coil element in the cross-over portion are different”. Clearly, in Kusase, the distances between the adjacent, parallel ends of coil x are the same (Fig. 5). Similarly, in

Kusase, the distances between the adjacent, parallel ends of coil y, and the adjacent, parallel ends of coil z are also the same.

Accordingly, Applicant respectfully submits that claim 11 is patentable over the applied references.

V. New Claims

Applicant adds new claims 12-14, support for which may be found throughout the specification. Applicant respectfully submits that these claims are patentable at least by virtue of the subject matter recited therein and at least by virtue of their dependency on claim 1.

VI. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Nataliya Dvorson/  
Nataliya Dvorson  
Registration No. 56,616

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE  
**23373**  
CUSTOMER NUMBER

Date: June 18, 2008